

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
SPECIAL PUBLIC MEETING DATE: April 21, 2022

REGULAR X CONSENT _____ EFFECTIVE DATE _____ Upon Commission Approval

DATE: April 14, 2022

TO: Public Utility Commission

FROM: Lori Koho, Yassir Rashid, and Lisa Gorsuch

THROUGH: Bryan Conway **SIGNED**

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. UM 2208)
2022 Wildfire Mitigation Plan – Request for Commission Approval.

STAFF RECOMMENDATION:

Approve Portland General Electric’s (PGE or Company) 2022 Wildfire Mitigation Plan and direct PGE to incorporate Staff’s recommendations it its 2023 Plan.

DISCUSSION:

Issue

Whether the Oregon Public Utility Commission (Commission) should approve PGE’s 2022 Wildfire Mitigation Plan and direct PGE to work with Staff and stakeholders to incorporate Staff’s recommendations in the Company’s 2023 Plan.

Applicable Rule or Law

Per ORS 756.040, the Commission has authority to supervise and regulate every public utility in Oregon, and to do all things necessary and convenient in the exercise of such power and jurisdiction. Under ORS 756.060, the Commission may adopt reasonable and proper rules relative to all statutes administered by the Commission.

ORS 757.035(1) provides the Commission with the authority to adopt safety rules and Regulations.

Executive Order 20-04 (EO 20-04), Section 5(B)(4) directs the Commission to evaluate electric companies' risk-based wildfire protection plans and planned activities to protect public safety, reduce risks to utility customers, and promote energy system resilience in the face of increased wildfire frequency and severity, and in consideration of the recommendations made by the Governor's Council on Wildfire Response 2019 Report and Recommendations.

Senate Bill (SB) 762 (2021)¹ is a comprehensive bill, which established standards for electric utility Wildfire Mitigation Plans. Relevant sections of SB 762, specific to requirements to be included in electric utility Wildfire Protection Plans (Plans) and the requirement for the Commission to promulgate rules related to the requirements of those plans have been incorporated in the Commission's statutes ORS 757.960 through 757.969.

OAR 860-300-0020 articulates the minimum requirements for Wildfire Mitigation Plan filings as well as the process for Commission approval of the plans.

Analysis

Background

On December 30, 2021, PGE filed its risk-based Wildfire Mitigation Plan (WMP or Plan) with the Commission. Under SB 762 (2021) and OAR 860-300-0020, public utilities in the State of Oregon must adopt and operate in compliance with an annually updated WMP that is filed with the Commission. Staff and Bureau Veritas North America, Inc. (BVNA), an Independent Evaluator (IE), have evaluated the 2022 Plan. BVNA was selected through a competitive bidding process to serve as an Expert Witness and to provide written testimony to assist in Staff's overall analysis and review of the Plan for rule compliance, and to make recommendations about Plan approval that may include conditions (i.e. future actions and/or additional requirements/updates for inclusion in upcoming year's Plan).

Staff's analysis, detailed below, considers PGE's compliance with the Wildfire Mitigation Plan minimum requirements set forth in OAR 860-300-0020. The comments, recommended actions, and recommended additional requirements for inclusion in the Company's 2023 Plan, reflect Staff's review of the Company's WMP, review of the IE's Report, review of Stakeholder Comments, and ongoing participation in WMP public workshops and Stakeholder engagement. In addition to written stakeholder comments, Staff and the IE consulted with emergency managers in some local jurisdictions to gain

¹ Section 3, chapter 592, Oregon Laws 2021, available at [SB0762 \(oregonlegislature.gov\)](https://legislature.oregon.gov/bills/2021/SB0762).

insight into perceptions by the local community of the effectiveness of the utility's community outreach efforts.

BVNA developed specific assessment criteria for evaluation of the utility WMPs. The criteria were, in many cases, more rigorous and detailed than the requirements in OAR 860-300-0020. These standards have provided a view into the components of a more robust Plan, but did not alter Staff's determination of compliance with the 2022 Plan requirements. Additionally, the IE used evaluation rankings of "Met," "Substantially Met," "Partially Met," and "Not Met." Staff did not adopt this ranking system. Staff's analysis resulted in a conclusion that the utility either met the requirement or didn't. However, in most cases, even when Staff determined the utility met a specific requirement, Staff provided recommendations that will enhance the Company's future Plans and provide more evidence that the Company's Plan is risk based. Many of Staff's recommendations are based on or supported by recommendations made by the IE.

The IE's Report and stakeholder comments can be found in Docket No. UM 2208.²

Plan Compliance Review and Recommendations by Section

OAR 860-300-0020 (1)(a)(A) & (B):

Identified areas that are subject to a heightened risk of wildfire, including determinations for such conclusions, and are: (A) Within the service territory of the utility, and (B) Outside the service territory of the utility, but within the utility's right-of-way for generation and transmission assets.

Staff Analysis:

PGE met this requirement by describing the approach it used to conduct its analyses identifying High Risk Fire Zones (HRFZs) using quantitative risk assessment tools and techniques. PGE utilized industry standards and processes to conduct its analyses and recognizes the fine tuning of its approach to wildfire mitigation.

Throughout its WMP, PGE describes several ways to tackle the risk of wildfire with an eye towards the reality that its approach evolves in response to changes in conditions and rules issued by the PUC. In the 2022 WMP, PGE identified ten distinct HRFZs, which are areas that could be subject to Public Safety Power Shutoff (PSPS).

In 2019, PGE began a multi-phase wildfire risk assessment and modeling program to evaluate industry best practices, identify the HRFZs within PGE service territory, quantify the likelihood that its assets could contribute to the ignition of wildfires, and

² <https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=23111>.

determine the locations where a potential wildfire ignition would be most significant. PGE calculates baseline equipment risk in terms of ignition probability, given its type, age, condition, and location. Probability values vary with age and condition, increasing as equipment ages.

Staff agrees with the IE regarding the need for more information and details of the analyses used to identify risks.

Staff Recommendation for PGE's 2023 Plan:

1. PGE include more information on the analyses completed to identify the relative risk of overhead asset components, such as specific wire types and equipment; and how it uses that information to guide wildfire related decisions, including budgets.

OAR 860-300-0020 (1)(b):

Identified means of mitigating wildfire risk that reflects a reasonable balancing of mitigation costs with the resulting reduction of wildfire risk.

Staff Analysis:

PGE met this requirement by describing the main activities it utilizes to reduce wildfire risk, how they reduce risk, and how they balance the costs of the identified activities versus the effectiveness of reducing wildfire risk.

In its WMP, PGE identifies various activities and protocols it utilizes to reduce fire risk. These protocols include situational awareness; enhanced monitoring and communication; training and preparedness; and event response and management. PGE created an ignition management-tracking database and process, the information from which allows PGE to base the system hardening investments on the risk drivers that deliver optimized risk/spend efficiencies. Over time, the ignition probability values database can be refined to create more accurate risk projections.

PGE's wildfire investment strategy ranks system hardening and situational awareness projects, identified as the highest value wildfire risk mitigation projects, per dollar of investment.

Staff agrees with the IE's recommendation that PGE should provide more details in its analyses, as well as information on any previous wildfires, to establish baselines for improvement.

Staff Recommendations for PGE's 2023 Plan:

2. PGE include details of the analysis comparing measured risk reduction of plan activities to their costs, and the recommendation that future WMPs include information on past year's wildfires.
3. PGE provide a history of wildfires in PGE's service territory, identifying which of those wildfires were caused by PGE utility assets in order to provide a context that would assist in measuring the value of the risk reduction investments.

OAR 860-300-0020 (1)(c):

Identified preventative actions and programs that the utility will carry out to minimize the risk of the utility's facilities causing wildfire.

Staff Analysis:

PGE met this requirement by identifying preventative programs that the utility will carry out to minimize the risk of the utility's facilities causing wildfire. The preventive programs that PGE implemented will enable PGE to collect information that helps determine high-level risk, and accordingly set its priorities to minimize the wildfire risk.

These activities include inspection programs, vegetation management, system hardening, situational and conditional awareness, system operations, field operations, and PSPS implementation. PGE described each action and how it would be executed. PGE described how each action would minimize the risk of utility facilities causing a wildfire.

Staff agrees with the IE's recommendation that future WMPs should include more details about results of actions taken as well as to attempt to quantify risk reduction attained by these actions.

Staff Recommendations for PGE's 2023 Plan:

4. PGE include details of how the objectives of individual key preventative actions have been or have not been met, from the prior year of system operation.
5. PGE further demonstrate to what degree the preventable measure has reduced the risk of the utility's infrastructure from the cause of fire.

OAR 860-300-0020 (1)(d):

Discussion of the outreach efforts to regional, state, and local entities, including municipalities, regarding a protocol for the de-energization of power lines and adjusting

power system operations to mitigate wildfires, promote the safety of the public and first responders, and preserve health and communication infrastructure.

Staff Analysis:

PGE met this requirement in its 2022 WMP by describing its overarching wildfire outreach and public awareness strategy that covers its Wildfire Mitigation Plan Engagement Strategy, Wildfire Information and Awareness Strategy, Public Safety Partner Coordination Strategy, and Public Safety Power Shutoff Notification Strategy. The Company also discusses goals and objectives of PGE's Wildfire Outreach, Public Awareness efforts, and Public Safety Partners engagement. The Company used this outreach to develop/update a Wildfire Information and Awareness Strategy that is informed by local needs and best practices.

PGE describes compliance with 1(d) beginning largely on page 41 through page 48 under the headings Section 11. Community Outreach and Public Awareness, 11.1 Wildfire Mitigation Plan Engagement Strategy, 11.2 Wildfire Information & Awareness Strategy, 11.3 Assessing Effectiveness of PGE Engagement Efforts, 11.4 Public Safety Partner Coordination Strategy, and 11.5 PSPS Notification Strategies, but is also touched on in other sections in the Plan.

Staff recommendations for PGE's 2023 Plan:

6. PGE include more detailed information about how the previous year's Public Safety Partner input through After Action Reports (from exercises and events), surveys or other feedback mechanisms, and Company lessons learned influence the WMP in its 2023 WMP Update.
7. PGE include clarification about Community Resource Centers (CRC) in its 2023 WMP Update, to include:
 - Whether or not CRCs will be activated by the Company in every instance of a PSPS, and
 - How and when local emergency management will be notified about whether a CRC will be activated for critical preparation in meeting the needs of the impacted community.

OAR 860-300-0020 (1)(e) :

Identified protocol for the de-energization of power lines and adjusting of power system operation to mitigate wildfires, promote the safety of the public and first responders, and preserve health and communication infrastructure.

Staff Analysis:

PGE met the requirement to describe its PSPS protocol by providing an overview of the stages of a PSPS event and the actions taken within each step; what happens during a PSPS event; and levels during a PSPS event, from a PSPS Watch through PSPS Demobilization, in its Plan.

PGE, in its 2022 WMP, describes its PSPS protocol in compliance with 1(e) beginning on page 28 through page 31 under the headings Section 7. Operations Through PSPS Events, 7.1 Protocols for De -Energization of Power Lines and Power System Operations During PSPS Events, and 7.2 Stages of a PSPS Event, but the subject is also touched on in other sections of the plan.

PGE also met the requirement to identify adjustments to system operation by describing adjustments it will implement to its power system operations to prevent its equipment from providing ignition to wildfire, and describing operations in non-wildfire threat conditions.

Specifically, PGE stated that once the fire season has been declared, operational changes are implemented to reduce the risk of ignitions caused by its infrastructure and activities. The main change has to do with adjusting its protection schemes. An example of these system changes is manually blocking non-remote controlled non-Supervisory Control and Data Acquisition (SCADA) distribution reclosers in the HRFZs from automatically closing circuits following a momentary outage. PGE crews will patrol the downstream circuit before restoring the service. That way, the risk of utility-caused ignitions during fire season could be reduced. PGE stated that distribution feeders servicing its HRFZs, which are equipped with SCADA, and certain relays could be set to operate in a specialized wildfire protective mode.

Staff shares the IE's concern that more information about the analysis used to make decisions for modifying operations during the fire season is needed.

Staff Recommendation for PGE's 2023 Plan:

8. PGE include additional detail specific to its Corporate Incident Management Team, including their roles and responsibilities during a PSPS event in its 2023 WMP Update.
9. PGE include previous year's lessons learned regarding de-energization of power lines to include findings from after action reports, including survey results from exercises and actual events (when available), in its 2023 WMP.

10. PGE include more information about the analysis used to make decisions to modify system operations, such as limiting reclosing to one attempt during fire season, because that will help measure successes of these adjustments in future WMPs.

OAR 860-300-0020 (1)(f):

Identification of the community outreach and public awareness efforts that the utility will use before, during, and after a wildfire season.

Staff Analysis:

PGE met this requirement by listing and describing its community outreach and public awareness efforts.

PGE describes its protocol in compliance with 1(f) beginning largely on page 41 through page 48 under the headings *Section 11. Community Outreach and Public Awareness, 11.1 Wildfire Mitigation Plan Engagement Strategy, 11.2 Wildfire Information & Awareness Strategy, 11.3 Assessing Effectiveness of PGE Engagement Efforts, 11.4 Public Safety Partner Coordination Strategy, and 11.5 PSPS Notification Strategies*, but also discusses this topic in other sections in the Plan.

Staff Recommendations for PGE's 2023 Plan:

11. PGE include enhanced description of the outreach efforts in its 2023 WMP Update, including:
 - Selection process for methods of outreach;
 - Determination of target audience;
 - Metric and criteria used to evaluate effectiveness of outreach;
 - Outcome of previous year's outreach evaluation; and
 - Description of timing of the outreach, including before, during, and after wildfire season.
12. PGE include a discussion about community outreach and public awareness efforts as part of its 2022 emergency training and exercise imminent events, to clarify these activities, and to solicit input from participating Stakeholders.

OAR 860-300-0020 (1)(g):

Description of procedures, standards, and time frames that the Public Utility will use to inspect utility infrastructure in areas the Public Utility identified as heightened risk of wildfire.

Staff Analysis:

PGE met this requirement by describing its inspection activities in both HRFZs and non-HRFZs. PGE provided description of procedures and standards it will utilize to implement and enhance inspection activities in wildfire risk areas.

PGE articulated that it performs a variety of routine inspection and maintenance activities throughout the calendar year. PGE annually conducts aerial safety inspections to its 230 kV and 500 kV via helicopters crewed by journeymen linemen, who look for any high-level hazards. PGE's 57kV and 115kV lines also undergo an annual safety inspection through a mix of air and vehicle patrols. PGE conducts annual safety patrols for 50 percent of its entire system. Those patrols include routine safety patrols of overhead electric supply lines and accessible facilities for hazards to the public at least once every two years.

PGE described how it is supplementing its existing overhead inspection and corrections program in the HRFZs. PGE will annually inspect all overhead assets in the HRFZs, transition to an Inspect-Correct approach (using two-person crews to inspect and repair most corrections and mitigate risk in a single visit to the pole); and reduce correction timeframes to no more than 30 days for infractions that pose hazards. Additionally, PGE indicated that it is hiring dedicated wildfire inspection resources, including a project manager and Quality Assurance/Quality Control (QA/QC) field personnel, and building a technology tool to enable mobile inspections and track inspection progress with a dashboard.

Consistent with the IE's recommendations, Staff agrees that more details are required to fully evaluate PGE's plans.

Staff Recommendation for PGE's 2023 Plan:

13. PGE provide more details regarding inspection and correction procedures for distribution assets, for non-wildfire risk zones and HRFZs, along with the impacted line-miles and structure counts for transmission and distribution assets in HRFZs.
14. PGE provide more details on whether the enhanced inspection and correction protocols are planned only for the WMP year, or if they are forecasted to expand beyond the plan year.

OAR 860-300-0020 (1)(h):

Description of the procedures, standards, and timeframes that the utility will use to carryout vegetation management in areas it has identified as heightened risk of wildfire.

Staff Analysis:

PGE met this requirement by providing description of vegetation management programs and activities in both HRFZs and non-HRFZs. PGE provided a description of how it complies with the administrative rule, and how it implements a new vegetation management program targeting HRFZs.

In its WMP, PGE defines two components of its vegetation management strategy: Routine Vegetation Management (RVM) and Advanced Wildfire Risk Reduction (AWRR). PGE manages approximately 2.4 million trees within its right-of-way (RoW) of 12,000 overhead line miles. PGE expanded the Routine Vegetation Management program to include trees outside its right-of-way that are dead, dying, diseased, or that display habits or defects that would impact PGE overhead lines. PGE conducts its Routine Vegetation Management around the year on a three-year cycle to comply with OAR 860-024-0016.

Recently, PGE introduced Advanced Wildfire Risk Reduction as enhanced proactive means to tackle wildfires. Under Advanced Wildfire Risk Reduction, PGE performs annual vegetation inspections of all overhead line mileage that falls within HRFZs; optimizes vegetation management strategies based upon inspection results; performs QA/QC of vegetation management inspection and mitigation work completed by its crews; and documents its vegetation management activities and coordinates vegetation management activities with counties, municipalities, and external agencies within its right-of-way.

Stakeholder Comments:

In its written comments, Rouge Climate stated that PGE should consult with indigenous communities, licensed arborists, and various federal and state agencies to ensure that vegetation management practices are performed according to standards.

Staff Recommendation PGE's 2023 Plan:

15. Consistent with Staff's earlier recommendation, PGE provide a detailed analysis of historical wildfire events where PGE power lines, its equipment, vegetation behavior, and any other components informed the program's design and its success factors. Future WMPs should provide the logic and details of analysis completed for programming decisions in HRFZs regarding vegetation management practices and protocols.
16. PGE include the impacted line-miles and structure counts for transmission and distribution assets that are part of the AWRR program.

OAR 860-300-0020 (1)(i):

Identification of the development, implementation, and administrative costs for the plan, which includes discussion of risk-based cost and benefit analysis, including consideration of technologies that offer co-benefits to the utility's system.

Staff Analysis:

PGE met the requirement of this rule by providing a summary of the costs associated with implementation of this plan.

While the IE determined the Company “Met” and “Substantially Met” its criteria in evaluating the Company’s compliance with this rule, Staff would like to see more evidence of quantitative analysis. These Plans are to be risk-based and this is one of the areas in which PGE can provide more objective and quantitative discussion of how it prioritized costs. There is no discussion about how technologies that might offer co-benefits to the utility’s system are evaluated, or evidence of objective risk-based cost and benefit analysis.

The Company could have provided examples of potential solutions with cost and benefit to demonstrate it is making the best choices for ratepayers. Ideally, this would be tied to best practices and innovative options identified participating in activities described in OAR 860-300-0020 (1)(j) or research performed by the company itself.

Staff Recommendations for PGE’s 2023 Plan:

17. PGE include a summary of the quantitative analysis used in the choice and prioritization of specific solutions and investments.
18. PGE include how solutions providing co-benefits have been considered in its investment strategies.
19. PGE discuss the impact of participation in expert forums on identification of solutions most like to provide the benefits anticipated. This should include:
 - Cited research, reports, and studies used in any analysis, unless the source is confidential.
 - How the factors unique to the Company’s facilities and service territory were used when considering the applicability of specific options to its systems.

OAR 860-300-0020 (1)(j):

Description of participation in national and international forums, including workshops identified in section 2, chapter 592, Oregon Law 2021, as well as research and analysis

the utility has undertaken to maintain expertise in leading edge technologies and operational practices, as well as how such technologies and operational practices have been used to develop and implement cost effective wildfire mitigation solutions.

Staff Analysis:

The Company met the requirement of this rule. Staff appreciates the Company providing specific examples of projects it is participating in as a result of these relationships.

The Company described its participation in a number of forums where it can collaborate with peers as well as national and international experts. The Company provided examples of where it has partnered with Texas A&M University in piloting the use of Distributed Fault Anticipation technology. These devices are being tested for the capability of advanced fault detection. The Company also described how it is working with the Oregon Department of Forestry in installing wildfire cameras in high-risk locations.

Staff agrees with the IE's comments that the Company did not provide enough details of what it may have learned through the various forums it participates in.

Staff Recommendation for PGE's 2023 Plan:

20. PGE include more specifics on what it has learned by participating in these groups. Staff would like assurance the Company is leveraging the learnings from other utilities to facilitate implementation of solutions with the highest benefit cost ratio.

Stakeholder Comments Related to Overall Plan

Staff appreciates the time, effort, and insight provided in Stakeholder comments. Recommendations submitted in comments were considered in Staff's overall review, analysis, and recommendations for PGE's WMP efforts for Commission consideration. In general, the comments provide many ideas for consideration when PGE is developing its plan for 2023.

Oregon Solar + Storage Industries Association (OSSIA)³

OSSIA's comments were directed to both Pacific Power and PGE. Energy and environmental justice assessment methodologies are being explored in many venues, but the Commission did not set that as a requirement for these Plans. OSSIA also suggested both PGE and Pacific Power include more consideration of the value of

³ <https://edocs.puc.state.or.us/efdocs/HAC/um2207hac868.pdf>.

decentralized infrastructure. The current rules require utilities consider co-benefits of different potential mitigation options but they do not expressly require utilities prioritize specific solutions.

Portland General Electric⁴

PGE expressed concern that the evaluation criteria used by the IE is beyond the requirements set in current rule. Staff wants to make clear that the IE's recommendations and conclusions only provided guidance to Staff. The individuals with Bureau Veritas conducting the evaluation have extensive experience evaluating plans in other states with varying requirements. Many of the IE's comments reflect that experience. Staff does agree with many of the recommendations provided by the IE and those are captured in Staff's memo.

It is not unusual for the Commission to provide clarification, by order, on how a utility demonstrates compliance with specific requirements in rule. Staff believes the recommendations it is making will improve future WMPs.

PGE expressed concern about Stakeholder comments received and staff's recommendations to expand on its discussions about Community Resource Centers (CRC). The rules do not require utilities provide CRCs and yet, during past emergencies, utilities have often arranged for and staffed CRCs. The recommendations reflect concerns raised by local jurisdictions who would like more certainty knowing when a utility will or won't set up a CRC in an area. Staff supports increased communication around expectations. Staff is not implying it is the utility's responsibility to set up CRCs in impacted areas. Only that a utility must make its intent clear in plans and through coordination with local jurisdictions.

Conclusion

Staff considers WMPs as ongoing living documents or plans that are more a "journey" and less a "destination." Future Plans will be shaped by new technology, greater understanding of risks, climate change, and energy policy. Minimum requirements will likely change and expectations of providing more details used in risk analysis, cost-benefit analysis, and new technologies will expand. This will be a continuing effort in partnership with Stakeholders to not only comply with minimum requirements, but also to improve practices that will facilitate electric safety and reliability for the utilities and the public they serve.

⁴ <https://edocs.puc.state.or.us/efddocs/HAC/um2207hac115358.pdf>.

Staff commends PGE for the thought and effort that went into this Plan. This is the first formal plan PGE has submitted to the Commission and while all plans can be improved, this Plan demonstrates the Company is fully engaged and committed to implementing solutions that will meet the expectations of the Commission, ratepayers, utility infrastructure, the public, and the environment all Oregonians treasure.

Staff recommends approval of PGE's 2022 WMP. Staff provides its observations on modifications to be included in PGE's next WMP and includes them in Attachment A.

PROPOSED COMMISSION MOTION:

Approve PGE's 2022 Wildfire Mitigation Plan and direct PGE to incorporate Staff's recommendations it its 2023 Plan.

Attachment A: UM 2208 – Staff Recommendations

Staff Recommendations for PGE's 2023 WMP:

OAR 860-300-0020 (1)(a)(A) & (B):

1. PGE include more information on the analyses completed to identify the relative risk of overhead asset components, such as specific wire types and equipment; and how it uses that information to guide wildfire related decisions, including budgets.

OAR 860-300-0020 (1)(b):

2. PGE include details of the analysis of comparing measured risk reduction of plan activities to their costs, and the recommendation that future WMPs include information on past year's wildfires.
3. PGE provide a history of wildfires in PGE's service territory, identifying which of those wildfires were caused by PGE utility assets in order to provide a context that would assist in measuring the value of the risk reduction investments.

OAR 860-300-0020 (1)(c):

4. PGE include details of how the objectives of individual key preventative actions have been or have not been met, from the prior year of system operation.
5. PGE further demonstrate to what degree the preventable measure has reduced the risk of the utility's infrastructure from the cause of fire.

OAR 860-300-0020 (1)(d):

6. PGE include more detailed information about how the previous year's Public Safety Partner input through After Action Reports (from exercises and events), surveys or other feedback mechanisms, and Company lessons learned influence the WMP in its 2023 WMP Update.
7. PGE include clarification about Community Resource Centers (CRC) in its 2023 WMP Update, to include:
 - Whether or not CRCs will be activated by the Company in every instance of a PSPS, and
 - How and when local emergency management will be notified about whether or not a CRC will be activated for critical preparation in meeting the needs of the impacted community.

OAR 860-300-0020 (1)(e)

8. PGE include additional detail specific to its Corporate Incident Management Team including their roles and responsibilities during a PSPS event in its 2023 WMP Update.
9. PGE include previous year's lessons learned regarding de-energization of power lines to include findings from after action reports, including survey results from exercises and actual events (when available), in its 2023 WMP.
10. PGE include more information about the analysis used to make decisions to modify system operations, such as limiting reclosing to one attempt during fire season because that will help measure successes of these adjustments in future WMPs.

OAR 860-300-0020 (1)(f):

11. PGE include enhanced description of the outreach efforts in its 2023 WMP Update, to include:
 - Selection process for methods of outreach,
 - Determination of target audience,
 - Metric and criteria used to evaluate effectiveness of outreach,
 - Outcome of previous year's outreach evaluation,
 - Description of timing of the outreach, including before, during, and after wildfire season.
12. PGE include a discussion about community outreach and public awareness efforts as part of its 2022 emergency training and exercise imminent events, to clarify these activities, and to solicit input from participating Stakeholders.

OAR 860-300-0020 (1)(g):

13. PGE provide more details regarding inspection and correction procedures for distribution assets, for non-wildfire risk zones and HRFZs, along with the impacted line-miles and structure counts for transmission and distribution assets in HRFZs.
14. PGE provide more details on whether the enhanced inspection and correction protocols are planned only for the WMP year, or if they are forecasted to expand beyond the plan year.

OAR 860-300-0020 (1)(h):

15. Consistent with Staff's earlier recommendation, PGE provide a detailed analysis of historical wildfire events where PGE power lines, its equipment, vegetation behavior, and any other components that informed the program's design and its success factors. Future WMPs should provide the logic and details of analysis completed for programming decisions in HRFZs regarding vegetation management practices and protocols.
16. PGE include the impacted line-miles and structure counts for transmission and distribution assets that are part of the AWRR program.

OAR 860-300-0020 (1)(i):

17. PGE include a summary of the quantitative analysis used in the choice and prioritization of specific solutions and investments.
18. PGE include how solutions providing co-benefits have been considered in its investment strategies.
19. PGE discuss the impact of participation in expert forums on identification of solutions most like to provide the benefits anticipated. This should include:
 - Unless the source is confidential, the Company should cite research, reports and studies used in any analysis.
 - How the factors unique to the Company's facilities and service territory were used when considering the applicability of specific options to its systems.

OAR 860-300-0020 (1)(j):

20. PGE include more specifics on what it has learned by participating in these groups. Staff would like assurance the Company is leveraging the learnings from other utilities to facilitate implementation of solutions with the highest benefit cost ratio.